

CLAIMS

What is claimed is new and desired to be protected by Letters Patent is set forth in the appended claims:

1. An apparatus for distributing an operating supply to a plurality of appliances, each appliance being provided with a predetermined priority, the apparatus comprising:

means for selectively connecting the plurality of appliances in a series connection in order based upon the predetermined priority of each appliance; and

a plurality of sensors, each sensor being connected to a respective one of the plurality of appliances for sensing an operating state of the respective appliance, wherein said apparatus distributes an operating supply to one of said plurality of appliances in an ON state and having a highest priority.

2. The apparatus of Claim 1, wherein said means for selectively connecting includes a plurality of logical circuits, each logical circuit being associated with a respective one of the plurality of appliances whereby, when one of said logical circuits indicates its respective appliance is in the ON state, each of said plurality of logical circuits associated with an appliance having a lower predetermined priority prevent the operating supply from being provided to their respective appliance.

3. The apparatus of claim 2, wherein said sensor associated with the apparatus having the highest priority provides the logical circuit associated with the appliance having a next highest priority with a signal indicative of the operating state of the apparatus having the highest priority.

4. The apparatus of claim 2, wherein said sensor associated with the apparatus having the highest priority provides the signal indicative of the operating state of the apparatus having the highest priority and its complement to the logical circuit associated with the appliance having a next highest priority.

5. The apparatus of Claim 1, wherein the plurality of appliances are selected from at least one of gas powered devices, electrical devices, rooms having HVAC ductwork.

6. The apparatus of Claim 5, wherein the supply is selected from at least one of the oil, gas, electrical power, water, heated and cooled air.

7. The apparatus of Claim 1, wherein the plurality of appliances are combined into a plurality of groups, each group having a predetermined priority, and the plurality of groups include a group for each possible combination of the plurality of appliances.

8. An apparatus for distributing an operating supply to a plurality of appliances, wherein the plurality of appliances are combined into a plurality of groups, each group having a predetermined priority, and the plurality of groups include a group for each possible combination of the plurality of appliances, the apparatus comprising:

means for selectively connecting the plurality of appliances in a series connection in order based upon a predetermined priority for each appliance; and

a plurality of sensors, each sensor being connected to a respective one of the plurality of appliances for sensing an operating state of the respective appliance, wherein said apparatus distributes an operating supply to appliances within a group having a highest priority and each appliance within the group being in an ON state of operation.

9. The apparatus of Claim 8, wherein said means for selectively connecting includes a plurality of logical circuits, each logical circuit being associated with a respective one of the plurality of appliances whereby, the operating supply is supplied to all appliances in a group having a highest priority and logical circuits indicating the appliance in the ON state.

10. The apparatus of claim 9, wherein providing of operating supply to said plurality of appliances not in the group supplied with operating supply is prevented.

11. The apparatus of Claim 8, wherein the plurality of appliances are selected from at least one of gas powered devices, electrical devices, rooms having HVAC ductwork.

12. The apparatus of Claim 11, wherein the supply is selected from at least one of the oil, gas, electrical power, water, heated and cooled air.

13. A system for selectively providing operating supply, said system comprising:

- a processing device having a plurality of input ports and a plurality of output ports;
- a plurality of switches, each switch being connected to a respective one of said plurality of input ports and providing a signal representative of operating state to said processing device; and

- a plurality of appliances, each of said plurality of appliances being associated with a respective one of said plurality of switches and connected to a respective one of said plurality of output ports, wherein, when one of said appliances is in operating in an ON state, said processing device prevents an operating supply from being provided to other ones of said plurality of appliances.

14. The system of claim 13, wherein each of said plurality of appliances is provided with a predetermined priority whereby when more than one of said plurality of appliances request operating supply at a same time, a one of said plurality of appliances requesting operating supply and having a highest priority is provided with operating supply and allowed to turn on.

15. A method of distributing an operating supply to a plurality of appliances, the method comprising the steps of:

- a) providing each of the plurality of appliances with a predetermined priority;
- b) connecting the plurality of appliances in a series connection in order of descending priority;
- c) determining an operating state of an apparatus having a highest priority;
- d) providing operating supply to the apparatus having a highest priority upon determining the apparatus having a highest priority is in an ON state of operation;
- e) determining an operating state of an apparatus having a next highest priority upon determining the apparatus having a highest priority is in an OFF state of operation;
- f) providing operating supply to the apparatus having the next highest priority upon determining the apparatus having a highest priority is in an OFF state of operation; and
- g) repeating steps e) and f) providing operating supply to the apparatus having a next highest priority upon determining all apparatuses having a higher priority are in an OFF state of operation.

16. The apparatus of Claim 15, wherein the plurality of appliances are selected from at least one of gas powered devices, electrical devices, rooms having HVAC ductwork.

17. The apparatus of Claim 16, wherein the supply is selected from at least one of the oil, gas, electrical power, water, heated and cooled air.

18. A method of distributing an operating supply to a plurality of appliances, the method comprising the steps of:

- a) providing each of the plurality of appliances with a predetermined priority;
- b) dividing the plurality of appliances into a plurality of groups, the plurality of groups including a group for each possible combination of appliances;
- c) providing each of the plurality of groups with a predetermined priority;
- d) connecting the plurality of appliances in a series connection according to priority;
- e) determining an operating state of each apparatus; and
- f) providing operating supply to each apparatus within a group having a highest priority when each apparatus within the group is in an ON state of operation.

19. The apparatus of Claim 18, wherein the plurality of appliances are selected from at least one of gas powered devices, electrical devices, rooms having HVAC ductwork.

20. The apparatus of Claim 19, wherein the supply is selected from at least one of the oil, gas, electrical power, water, heated and cooled air.